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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of E. C. Leuthardt Serial No.: 10/735,474 Confirmation No. 2473

Filed: December 12, 2003

**Entitled: BRAIN COMPUTER INTERFACE** 

Group Art Unit 3736 Examiner: P. Mallari

### **DECLARATION UNDER 37 C.F.R. § 1.131**

I, Eric C. Leuthardt, declare and state as follows:

- I am a co-inventor of the subject matter claimed in U.S. Patent Application 10/735,474 entitled, "BRAIN COMPUTER INTERFACE," which was filed December 12, 2003.
- U.S. Patent Application Publication No. US 2005/0113744 A1 was cited against claims of the subject application in an Office Action dated July 11, 2005.
   U.S. Patent Application Publication No. US 2005/0113744 A1 has a priority date of November 21, 2003, which is twenty days before the priority date of the subject application.
- Attached as Exhibit A is a copy of my laboratory notes dated March 7, 2003 showing results for a Screening Protocol conducted with subject JJ using the Brain Computer Interface of the subject patent application.
- 4. Attached as Exhibit B is a copy of my laboratory notes dated May 21, 2003 showing results for a Screening Protocol conducted with subject DW using the Brain Computer Interface of the subject patent application.
- 5. Based on the attached exhibits, it is evident I and my co-inventors constructively reduced to practice the invention recited in the claims of the subject application before the priority date of U.S. Patent Application Publication No. US 2005/0113744 A1 and diligently pursued filing U.S. Patent Application 10/735,474 during a period of time beginning before the priority date of U.S. Patent Application Publication No. US 2005/0113744 A1 and lasting at least until the filing date of Application Ser. No U.S. Patent Application 10/735,474.

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4. I hereby declare that the statements made of my own knowledge are true and that all statements made on information or belief are believed to be true. I acknowledge that willful false statements and the like are punishable by fine or imprisonment or both (18 U.S.C. § 1001) and may jeopardize the validity of this application or any patent issuing therefrom.

Eric C. Leuthardt, M.D.

EXHIBIT A

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rpose:

Screening Protocol St. Louis 03/07/2003

'nitials:

JJ

Date: 3/7/02

Technician: Ence Couplands.

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19	2 min	protrude tongue in and out	onetarget
20	2 min	imagining to protrude tongue in and out	onetarget it schell
21	2 min	saying a word "move"	onetarget
(22)	2 min	Imagine saying a word "move"	onetarget
- 23	3 min ·	joystick task	joystick

VERT PERSEVERATIVE - 7 goes by I step points

JJ is known recovered arough to compute its the tests required
for the screening protocol. The proto I is a thicked above.

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COMPUTER AND THE ANAL 6 COMPUTER

WERE ON. THIS PROGRAGE: MEANS

THAT PRESTURS PREDUDNIZE ABOVE 70 PR

Livere FILTERS

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#### EXHIBIT B

Session DW 001 Date: 5/21(63

Screening Session: 00 / Comments .prm file Task did nell Base60 Resting eyes open 001 did well Base60 Resting eyes closed 002 did well horizontal Open closing right/left hand 003 Imagine Open closing right/left horizontal 004 too fest hand did well Onetarget Protrude tongue in and out 005 2 Onetarget Imagine protrude tongue in and did well 006 out Onetarget Say word move 007 Notwork coshed (5/22 008 (s/22/03 | Imagine saying word move ιι: ω Onetarget joystick joystick 009 did well Open closing right/left hand 2 horizontal 0 Imagine Open closing right/left horizontal 011 did well hand 2 1. duell Onetarget Protrude tongue in and out 012 Imagine protrude tongue in and Onetarget 013 1.6 wll out did well Onetarget Say word move 014 did well Imagine saying word move Onetarget 015 did nell ioystick joystick 016 Open closing right/left hand horizontal 017 Imagine Open closing right/left horizontal Ζ. 018 did well hand did well Protrude tongue in and out Onetarget 019 Imagine protrude tongue in and Onetarget 020 filling asterp out Id well Onetarget Say word move 021 Onetarget Imagine saying word move L\_2 ioystick joystick 023 did well Jug stick

PAGE 10/11 \* RCVD AT 12/12/2005 5:44:33 PM [Eastern Standard Time] \* SVR:USPTO-EFXRF-6/34 \* DNIS:2738300 \* CSID:3142595959 \* DURATION (mm-ss):03-20

Pre	-Testing Check List - 5/21/03 : DW					
X	Unplug Bed					
4	Unplug Fan and turn off TV					
X-	Use cortical lead as reference (most inactive lead) requires tech assistance					
X	Change the HIGH filter settings on the acquisition computer (in EEG monitor lab) to OFF					
-	Make sure that the acquisition frequency is set at 500 HZ					
	Uncheck the analog printer filter settings on the BCI computer					
	Names of Individuals involved:  Eric terthandt Note = reference = scalp  Gerwh Schalk  Pan Maran					
Post	Testing Check List					
	Make sure name and run are correct following each run					
	Make sure patient is reconnected to local network and being monitored					

Note: In chedany parameter tiles we rotal that the last care was sample ( 300 dz. Therefore we seek to rev date accord, to 300 dz. Because, seawlysis analyzed the date according to It . And to chule list - the personel pour perquetes 1 SOURCE \* Sunsling rate 500 Suffware channels 32

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